

Unit 2 Burner Injector Replacement

IGS07-02

April 2008

Project Overview

This project will purchase and install new burner injectors and elbows for all 48 burners in Unit 2. The injector is the center portion of the burner consisting of the coal pipe and the flower-like nozzle tips that the ABT burners are known for. Reference the attached drawing.

Project History

ABT burners were purchased and installed during the Spring 2004 outage on Unit 2. Damage to the burners was found during an inspection on 'F' row following a burner line fire in October 2005. Burners continued to show increased erosion problems. Coal-tip segment wear liners and a diffuser/wear liner for the injector were purchased and installed during the 2006 planned outage as a stop-gap measure due to time and money constraints. Severe cracking of the injector tip was also found on many burners during the planned outage. Fifteen (15) of the worst tips were removed and replaced with another design.

ABT has redesigned the injectors to eliminate the issues experienced with the first design. The replacement of the elbows with the "flat-back" design is a key element in the dispersion of the coal stream in the injector and thus the mitigation of erosion damage.

A change to the thermowell design for the injector thermocouples should also ensure accurate temperature information on the injectors.

Operational Impact

No operational impact is anticipated with these injectors. Engineering will work with Operations during startup to tune the burners if need be.

Maintenance Considerations

No additional maintenance considerations are anticipated. I&C will need to install the new thermocouples and ensure that they are hooked up to the PI system. PI screens for display of these temperatures are already in the system.